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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/165,683 | 10/02/1998 | YEVGENIY EUGENE SHTEYN | PHA23-483 | 8198 |

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EXAMINER

ZHEN, LI B

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2126 | 14 |

DATE MAILED: 04/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 09/165,683 | Applicant(s) SHTEYN, YEVGENIY EUGENE | |
| | Examiner Li B. Zhen | Art Unit 2126 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,467,264 to Rauch in view of International Publication No. WO 98/16886 to Chambers.

As to claim 1, Rauch teaches (column 1, lines 33 – 57; column 2, lines 56 – 67; column 6, lines 10 – 15; column 8, lines 23 – 50; column 11, lines 9 – 31) a system for controlling devices (selectively interdependent control of devices) with a first physical component (first device), a second physical component (second device), a first property (status field of first device... device status table 183 contains a number of entries, one entry provided for each device 130... each entry in the device status table 183 contains a device identifier field 502, a device condition field 504, and a device status field 506, Fig. 5) that is changeable (status of a device 130 can be changed based on a signal received... when the computer receives a signal from a device 130 via the receiver 150, the device control program 181 performs a receiver driver routine, Fig. 1) through a first call (receiver driver routine... update status field in device entry, step 1106, Fig. 11), a second property (status field of second device... device status table 183 contains a number of entries, one entry provided for each device 130... each entry in the device

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status table 183 contains a device identifier field 502, a device condition field 504, and a device status field 506, Fig. 5) that is changeable through a second call (in step 610, the device control program 181 locates each entry in the device status table 183 having in the device condition field 504 the device 130 whose status has changed...the device control program 181 then updates the status in the device status field 506 of the located entry in the device status table 183). Obviously, the step of updating the status of each device 130 that depends on a device 130 whose status has changed (step 610, Fig. 6) would be performed by a routine call.

Rauch teaches (column 6, lines 16 – 45) registering a property route (device condition field) linking the first property to the second property (identification of devices which the device has a dependency relationship) so that a change in the first property causes the second call to be issued to the second object upon invoking the property route (the status of "Device 2" stored in the device status field 506 will be ON only if the status of the "Timer 2" or "Device 1" is ON).

As to the first call comprising an identifier enabling to conditionally invoke a route, Rauch teaches (column 2, lines 47 – 50) the status of a device (device status field) changes when a device sends an signal (identifier) to the computer indicating that it has become activated or deactivated. When the computer receives the signal from the device, the device control program calls a receiver driver routine, which determines the status of the device from which the signal was received and updates the device status field in the device status table to reflect the status received (column 9, lines 3 – 18 of Rauch). After the signal from the device changes the device status field, the device

control program determines the devices affected by the status change based on the device condition field and updates those devices (column 9, lines 20 – 35). Therefore, the signal from the device changes the device status field and conditionally changes the device status field of other device entries in the device status table depending on the device condition field. Rausch teaches a software object (device control program 181, Fig. 1) and storing device properties as an entry in a device status table (device status table 183, Fig. 1), but does not teach a software object for each device.

However, Chambers teaches (P. 9, lines 20 – 32) an information processing system with a first physical component (real device 102 – 116, Fig. 1) represented by a first software object (abstract device 202, Fig. 2), a second physical component object (real device 102 – 116, Fig. 1) represented by a second component object (abstract device 202, Fig. 2), and changeable properties (status of abstract device changes). The system (P. 10, lines 30 – 34) enables registering a route (event) linking first object (abstract device wishing to notify) and second object (abstract device interested in being notified) such that property changes are sent to interested abstract devices.

It would have been obvious that the devices of Rauch would also be represented by software objects as taught by Chambers because the devices of Rauch and Chambers are both consumer electronic devices (column 10, lines 64 – 67 of Rauch; p. 7, lines 9 – 12 of Chambers) and software objects (Abstract Devices) hides the idiosyncrasies of the real device and present a more uniform interface for higher levels of software (p. 9, lines 26 – 32 of Chambers).

As to claim 2, Rauch teaches (column 2, lines 55 – 63) changing properties (status of device changes), initiating look-up action (search device status table) to identify property routes using identifiers (locate all entries with a device condition field containing an identification of device), and initializing matching property routes (update status).

As to claim 3 and 5, Rauch teaches (column 45 – 67) the identifier (device condition field) comprises a reference (contains identifiers) to a scenario of the operating system (conditions the device depends on).

As to claim 4 and 6, Rauch teaches (column 1, lines 39 – 51) a system that enables registering a property route (define a dependency relationship) and the property route comprises a reference to the software application (identification of device which the device has a dependency relationship).

As to claim 7, Chambers teaches (P. 11, lines 18 – 20) un-registering routes.

It would have been obvious that the dependency relationship of Rauch could also be un-registered when it is no longer desired.

As to claims 8 and 9, these are method claims that correspond to the system claims 1 – 2; note the rejections of claims 1 – 2 above, which also meet these method claims.

Response to Arguments

The applicant argues, (p. 3, lines 11 – 17) “in Rauch, the signal is sent when the status of the first device has changed whereas in the invention, the first call causes the first property to change.” The examiner respectfully disagrees because the property is

mapped to the device status field (see rejection above). The device status field is changed after receiving the signal from the device (column 9, lines 3 – 18 of Rauch), which would suggest that the signal changes the device status field.

The applicant argues (p. 4, lines 2 – 6) “when the first property is changed, the second property is conditionally changed...subject to the identifier, when the first property is changed, either the property route is invoked and the second property is changed, or alternately, the property route is not invoked and the second property is unchanged.” The examiner respectfully disagrees because the statements recited above are not brought out in the independent claims. For example, the limitation “the first call to the first object comprises an identifier enabling to conditionally invoke the route” (claim 1, lines 11 – 12) does not clearly bring out the applicant’s statement that “subject to the identifier, when the first property is changed, either the property route is invoked and the second property is changed, or alternately, the property route is not invoked and the second property is unchanged.” The limitation “the first call to the first object comprises an identifier enabling to conditionally invoke the route” is very broad. The independent claims do not clearly define the identifier; therefore, the identifier can be interpreted to be a representation of the new property of the first object. Broadly interpreted, the limitation means that the identifier represents the new property of the first object and based on the identifier, the route is conditionally invoked. Rauch teaches (column 9, lines 3 – 35) the identifier (signal) represents the new property of the first object (calls a receiver driver routine, which determines the status of the device from which the signal was received and updates the device status field in the device

status table to reflect the status received) and based on the identifier, the route is conditionally invoked (after the signal from the device changes the device status field, the device control program determines the devices affected by the status change based on the device condition field and updates those devices).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (703) 305-3406. The examiner can normally be reached on Mon - Fri, 8am - 4:30pm.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Li B. Zhen
Examiner
Art Unit 2126

lbz
March 31, 2003

